The Filtration Group Newsletter

FilterTalk

www.filtrationgroup.com
filtertalk@filtrationgroup.com

Volume 2/Number 5 July/August 2005

In 2004, Americans spent $3.1 billion on paint and after-market auto body equipment
- **Automotive Aftermarket Industry Association (AIAA)**

Volatile Organic Compounds (VOCs) found in automotive paint products contribute to the dangerous form of ground-level ozone that has been linked to respiratory problems
- **Environmental Protection Agency (EPA)**

Buildup of paint deposits on fan blades or stack walls will reduce the performance of any spray booth by as much as 15 to 25 percent, or even higher in many cases
- **Southeastern Booth Service and Supply (SEBSS)**

60 Excellence & Innovation Since 1942

PAINT BOOTH FILTRATION HAS AUTOSHOP OWNERS SEEING GREEN

One of the most tightly-controlled working environments, believe it or not, is an automotive paint booth. Auto manufacturers spend millions maintaining a precise airflow during a car's final cosmetic makeover. In a repair shop, the paint booth is the epitome of purity. The cleanliness of air supply in a paint booth is not on par with the sterility of a hospital's surgical room but when you consider the emotional and financial investments some people put into their prized automobiles, it starts to make sense.

Today's modern paint booths force air filters to do double duty. Ceiling fans draw in air and create a positive air pressure in the room but that fresh air has to be free of particles and dust, or they will become part of the new paint job. Exhaust filters catch the air outflow and the paint particles that don't make the final coat, ensuring that the escaping paint doesn't end up on the unwitting cars in the repair shop parking lot.

Clean air is critical because today's painting process is more complex than most realize. To get the paint thin enough to spray through the hand-held gun, solvents are added that have to evaporate before the paint begins to dry. The airflow must be adjusted to be just strong enough to remove the overspray from the booth, and not too strong that it affects the path of the paint from the gun to the car.

This is where the value of high quality filtration becomes apparent.

"The diffusion media in the ceiling of a booth must maintain high levels of efficiency, and should incorporate a set of pre-filters to catch the big contaminants but should have a low pressure drop so the ceiling fan pushing in the fresh air isn't working unduly hard," said Kevin Lynch, president of Filtrair. "This could mean thousands of dollars a year in energy savings, depending on the size and frequency of activity in the booth. The savings are substantial because the filters could cost a few hundred dollars over a year's time."

Down on the floor the paint particle filters are doing their best to keep the airflow constant. If they clog too quickly, as low-budget paint filters often do, the airflow slows and the ceiling fan works even harder to maintain a positive air pressure. Worse, the paint isn't being drawn out of the room at a fast enough rate. Visibility drops, paint droplets don't and the job is botched.

Filtrair, a Dutch filter manufacturer acquired by Filtration Group last year, made its name in automotive paint booths. Engineers developed multi-layered synthetic filter media that get progressively denser as the air passes through. The critical partical size in a paint booth is a miniscule 5-10 microns, which it too small for the human eye to see but can still disrupt a paint job. Filtrair's products capture 99.9 percent of these tiny intruders and maintain a high dust-holding capacity.

Proper filtration is the practically invisible solution to paint booth problems and can lower operating costs in the process. Ventilation is constant, the air is clean, and less frequent change-outs help painters see green.

NEW YORK FACILITY

675 miles south of Manhattan, Filtration Group is opening a new manufacturing plant in York, South Carolina. The company is combining resources and bringing its entire East Coast HVAC filter manufacturing under one roof to improve quality control and distribution. Previously, Filtration Group had facilities in Delaware, North Carolina and an additional one in York, South Carolina.

Operations from all three locations have moved into a newly-renovated 235,000-square foot facility. Filtration Group will occupy most of the new building, giving some space to the Filtrair group that relocated from the Delaware plant. Filtrair will continue to use manufacturing and office space in the original facility across town in York.

Prior to the mid-summer move, the new facility got a makeover. Complete with a refinished roof, improved sprinklers and lighting, and numerous environmental upgrades, the building is now ready to manufacture the various high efficiency filters produced by Filtration Group.

"Having our entire East Coast operations in York is going to improve the speed of delivery," said Dave Flynn, Filtration Group's director of manufacturing. "Orders can be shipped directly to the customer, without passing through another distribution point, saving Filtration Group and our customers not only time, but money."

There will also be more storage space for larger inventory.

Since the cross-town move began in early July, Filtration Group has hired 35 new employees. "As production in York continues to grow, we plan on hiring 75 to 100 people over the next few years," said Filtration Group CEO Larry Ost.

FilterTalk

July/August 2005

GOT A QUESTION FOR US?

Q: What is the difference between a standard HEPA filter, a High Capacity HEPA, and a High Volume HEPA?

A: Let's start with what they all have in common: cost savings. The difference between the three types is how those savings are realized by our customers. Filtration Group's Standard Capacity (SC HEPA) has a versatile design and low pressure drop with a low sticker price. A full-size 99.97 percent SC HEPA offers a pressure drop of 1.0" WC at 1,150 cfm. Our High Capacity design (HC HEPA) contains almost 50 percent more filter media area and has a pressure drop of 1.45" WC at 2,000 cfm. The extra media in an HC HEPA means more time between changeouts, cutting service costs. It's great for remote or hard-to-reach locations. For an ultra-low pressure drop, our High Volume design (HV HEPA) offers even more media area in a minipleated v-bank design, to provide a low 1.0" WC at 2,400 cfm. This translates to significant energy savings over the life of the filter and has become a popular choice for our customers.

- The Filtration Group Engineering Team

PRODUCT SPOTLIGHT: A STEP UP FOR HEPA FILTERS

HEPA (High Efficiency Particulate Air) filters have set the standard for quality air filtration. While traditional standard capacity HEPA filters are still a valuable commodity, there is always room for general upgrades and efficiency improvements. The filtration industry is always trying to enhance indoor air quality – it's just a matter of taking the next step.

Filtration Group has done just that. The company's new M-Series HEPA filter is redefining value, versatility and performance. The filter has a low operating cost. A low initial pressure drop. And a competitive upfront cost that won't clean out any wallets.

Its innovative design makes the M-Series extremely durable. The low weight, mini-pleated media pack and built-in handle allow for easy installation and limits the product's natural wear. Available in 18 gauge galvanized steel, the M-Series is built to last.

This series lets Filtration Group's customers upgrade their HEPA filters without any equipment or system modifications. It's the ideal filter for the pharmaceutical, medical and food industries, as well as contamination cleanups and hospitals. The M-Series can also be used as a pre-filter in a highly-sterile environment or other critical applications for final HEPA and ULPA filters.

FILTRATION GROUP EXECUTIVE NAMED PRESIDENT-ELECT OF CETA

The air filter industry is built on a great deal of trust. Surgeons trust that the filters in their operating rooms are preventing the transmission of airborne infections. Pharmaceutical production facilities must be assured that all of their products are being compounded and packaged within absolutely sterile conditions. Semi-conductor manufacturers are working in some of the cleanest conditions on Earth today.

How is this trust built? Through comprehensive product testing carried out by qualified, certified and highly-skilled personnel.

CETA deserves a lot of the credit for this. Since 1992 the Controlled Environment Testing Association has been developing and promoting quality control standards and evaluating new testing methodologies. Filtration Group's Gene Klingbeil was recently named president-elect of CETA and would like to renew its focus on the exchange of information among the organization's 300-plus members and the industries it serves.

"There have been many recent and significant changes to pharmaceutical standards in clean environments, for instance," said Klingbeil. "We need to make sure that all of the relevant institutions are aware of the standards and procedures and how to implement them."

CETA's annual conference is the organization's largest educational forum. As President-elect Klingbeil will chair the 2006 Conference Committee, creating the agenda and selecting the speakers for the four-day event held next April in Las Vegas.

"I would like to improve the dialogue between the certification and testing industry and the end users of the equipment," Klingbeil added. "Many of our conference seminars and publications are directed towards the requirements and concerns of the users but we'd like to hear more from them about what they need to do their jobs with the utmost confidence."

To further CETA's educational outreach, Klingbeil will work on the Publications Committee that oversees the publication of its quarterly journal, Performance Review. Klingbeil has authored or co-authored several technical articles in the newsletter. Filtration Group engineers Dr. Wenli Wang and Phil Winters, P.E., are also frequent contributors.

Klingbeil has been a member of CETA since 1998 and served on its board of directors since that time. He has been a member of its Technical Peer Review Panel, the Filter Bleed-Through Committee and has chaired its Emerging Technologies Committee.

Filtration Group was the first filter manufacturer to take a leading role in CETA and today four other competitors are members as well. The highly-sophisticated air filter technology used by CETA members can be provided by only the most advanced manufacturers, like Filtration Group. By teaming them up with their customers in the pursuit of better product testing, Klingbeil is helping to build the trust that our industry depends upon.

For more information on CETA and its work, visit www.cetainternational.org.

Filtration Group
912 E. Washington Street
Joliet, IL 60433